Inside: **Synthetic biology—Engineering nature to make materials**

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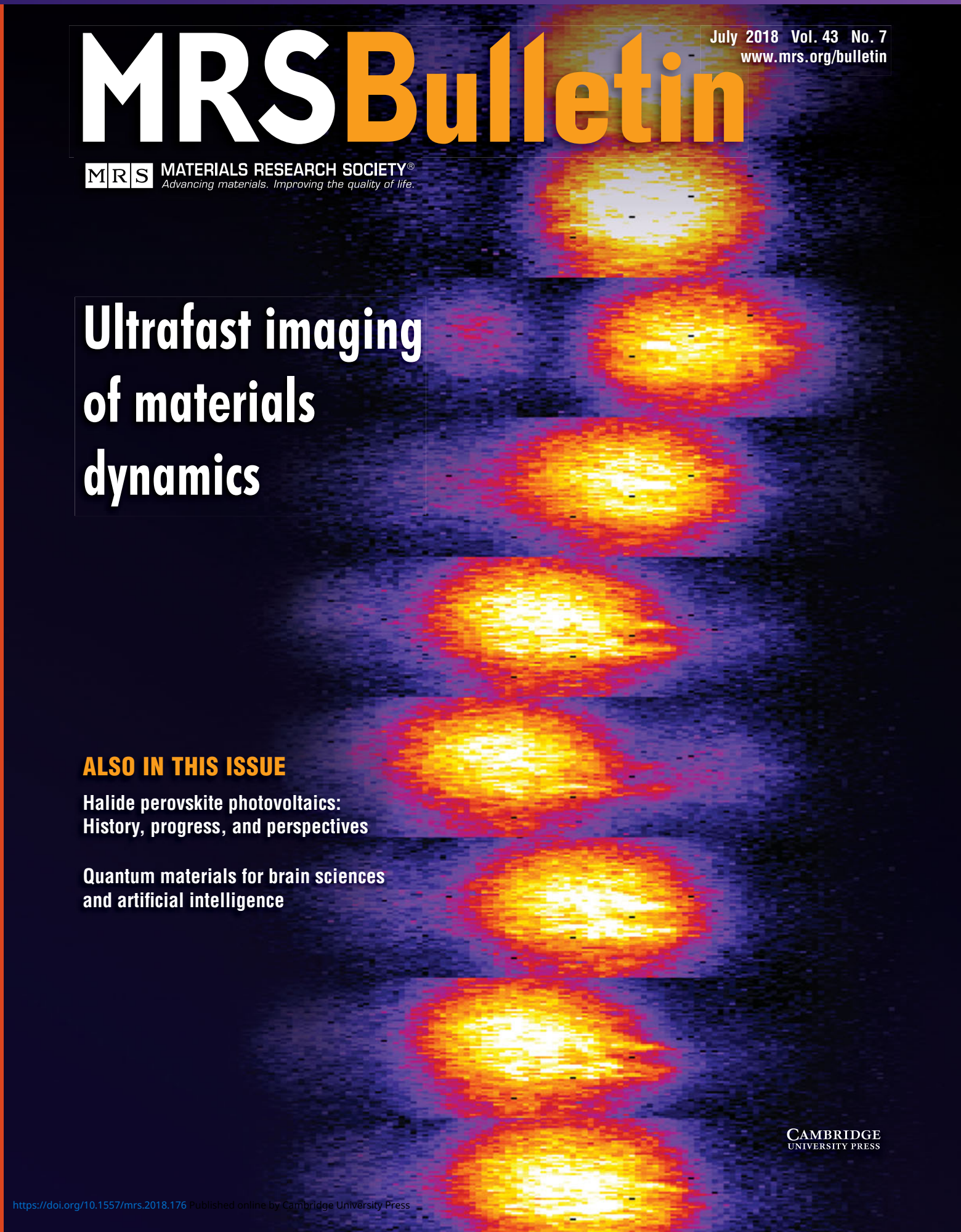
MRS Bulletin

MRS MATERIALS RESEARCH SOCIETY®
Advancing materials. Improving the quality of life.



Ultrafast imaging of materials dynamics

ALSO IN THIS ISSUE

Halide perovskite photovoltaics: History, progress, and perspectives

Quantum materials for brain sciences and artificial intelligence

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Calling Early-Stage Materials Innovators!

Showcase your technology… Connect with investors & industry professionals

iMatSci Innovation Showcase

2018 MRS® FALL MEETING & EXHIBIT

Hynes Convention Center | Boston, Massachusetts

Tuesday, November 27 – Wednesday, November 28

Are you a pre-revenue or seed-stage materials innovator and entrepreneur looking to demonstrate the value of your product to high-level decision makers and materials venture investors? If so, join us for the **iMatSci Innovation Showcase,** where you will have the unprecedented opportunity to meet and interact with industry, R&D leaders, and investors who can help to effectively lead your venture to success!

Past participants include Advanced Research Projects Agency–Energy, Air Force Office of Scientific Research, BASF Ventures, The Dow Chemical Company, Lockheed Martin, MilliporeSigma, Samsung Research America, Solvay Ventures, and more!

Interested in being a part of iMatSci this year?

Submission Site Opens: June 1, 2018

www.mrs.org/become-an-innovator

Why Get Involved?

Each innovator will be provided with exhibit space at the Hynes Convention Center to present his/her technology or product using various forms of media such as pitch decks, marketing videos, prototypes and executive summaries. Presentations will be judged by experienced technology investors and industry professionals.

By participating in iMatSci, innovators will be granted access to:

- **A full schedule of workshops, seminars and panel discussions,** with topics specifically geared toward the success of early-stage innovators
- **One-on-one meeting spaces** to showcase their innovations and interact with strategic partners, industry technology scouts, investors and collaborators
- **Exclusive networking events,** Q&A sessions and receptions
- **An opportunity to network and be paired with mentors** from industry, local accelerators and investors
- **Cash prizes awarded** to the top three most innovative teams and a **$10,000 investment from the Chemical Angel Network** most likely in the form of a convertible note.

How to Participate

To participate, innovators should be:

- Interested in commercializing their technologies
- Able to propose a value proposition for their innovations
- Capable of effectively demonstrating the commercial applications of their technologies
- Actively seeking partners, funding and/or paths for commercialization

Online applications will be accepted through **August 1, 2018,** and must be submitted through the iMatSci submission portal at **https://imatsci.mrs.org**.

For further information about the submission guidelines, innovators packages, selection criteria, sponsorship opportunities and more, check out the complete iMatSci web page at **www.mrs.org/imatsci.**

For questions about iMatSci or to become a sponsor, please contact:

Natalie Larocco
Materials Research Society
larocco@mrs.org
imatsci@mrs.org
724.779.2744

MRS Innovation ConneXions
Connecting People and Ideas

"My experience at iMatSci was invaluable. Few opportunities can match what iMatSci provides by allowing innovators to meet with other entrepreneurs to discuss their technology, pathways for funding, and strategies for commercialization. It was a richly stimulating experience."

– C. Wyatt Shields IV, iMatSci Innovator, Encapsio LLC; Research Triangle MRSEC Fellow

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TECHNICAL FEATURE

ON THE COVER

Ultrafast imaging of materials dynamics. The advent of short-pulse electron and x-ray sources has enabled pump-probe approaches for elucidating ultrafast materials dynamics. This issue of *MRS Bulletin* provides a cross section of the vigorous activity occurring in the study of light-induced ultrafast materials dynamics as it relates to various approaches. The cover shows measurements of the center of mass of the scattered x-ray spot in a pump-probe geometry that reveal an unexpected electronically induced compression appearing at time $t = 10$ ps, associated with a light-induced modulation of the van der Waals interaction. Credit: Ehren Mannebach, Stanford University PULSE Institute. See the technical theme that begins on page **485**.

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About the Materials Research Society

The Materials Research Society (MRS), a not-for-profit scientific association founded in 1973 and headquartered in Warrendale, Pennsylvania, USA, promotes interdisciplinary materials research. Today, MRS is a growing, vibrant, member-driven organization of over 16,000 materials researchers spanning over 80 countries, from academia, industry, and government, and a recognized leader in the advancement of interdisciplinary materials research.

The Society's interdisciplinary approach differs from that of single-discipline professional societies because it promotes information exchange across many scientific and technical fields touching materials development. MRS conducts three major international annual meetings and also sponsors numerous single-topic scientific meetings. The Society recognizes professional and technical excellence and fosters technical interaction through University Chapters. In the international arena, MRS implements bilateral projects with partner organizations to benefit the worldwide materials community. The Materials Research Society Foundation helps the Society advance its mission by supporting various projects and initiatives.

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